

REMARKS

By this amendment, claim 4 has been amended, and claims 8-14 have been added. Thus, claims 4-14 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

On pages 2-5 of the Office Action, claims 4-7 were rejected under 35 U.S.C. 103(a) as being anticipated by Tanaka2 (JP 2000-266144) in view of Sirven (U.S. 4,749,068). This rejection is respectfully traversed and, in any event, is believed clearly inapplicable to the claims as now amended, for the following reasons.

First, the rejection is respectfully traversed on the basis that a person having ordinary skill in the art would not have found it obvious to modify Tanaka2 in the manner indicated by the Examiner in the Office Action in view of the Sirven patent.

In this regard, as described at column 7, lines 7-10, “when the compression speed of the rod is not yet too great, the liquid can still pass through the holes 55 in the flap valve 52 which has not yet opened.” As described at column 7, lines 20-21 of Sirven, “at a certain compression speed limit, the flap valve 52 is made to open.” Therefore, it can be understood that the holes 55 in the flap 52 of Sirven correspond to the claimed “minute oil leak gap” and also to the alleged oil leak gap 14 of Tanaka2. Furthermore, it can be understood that the flap valve 52 of Sirven corresponds to the claimed “relief valve.”

With this in mind, the question to consider is whether or not a person having ordinary skill in the art would have found it obvious to modify the tensioner of the Tanaka2 reference to provide a relief valve separately from the alleged oil leak gap 14 of Tanaka2, as required by claim 4, in view of the teachings of the Sirven patent. It is submitted that a person of ordinary skill in the art, the art clearly would not have found such a modification obvious.

In this regard, it is first noted that the oil leak gap of Sirven (i.e., holes 55) is completely different in structure from the alleged oil leak gap 14 of Tanaka2. Second, the oil leak gap (i.e., holes 55) of Sirven is formed in, and is thus integral with, the relief valve (i.e., the flap valve 52) of Sirven. Furthermore, even if a person having ordinary skill in the art might somehow have wanted to provide, in the device of Tanaka2, a relief valve that is separate from the oil leak gap

14, the Sirven patent clearly fails to provide even the slightest hint or guideline as to where and how such a relief valve would be provided in the device of Tanaka2, separately from the oil leak gap 14, especially in view of the fact that, in the Sirven patent, the relief valve (i.e., flap valve 52) is integral with the oil leak gap (i.e., the holes 55).

Additionally, in devices such as those of the Sirven patent (i.e., shock absorbers for automotive suspensions), a relief valve (such as the flap valve 52 of Sirven), or a similar means for decreasing the damping force, is an indispensable element, as is apparent from the discussion at column 1, lines 5-9 of Sirven. In contrast to this recognized need and use in devices such as automotive shock absorbers, prior to the present invention, the inclusion of a relief valve or other means for decreasing damping force had not been considered even as a preferred element in an auto-tensioner such as that of Tanaka2, let alone considered as an essential element for an auto-tensioner. Therefore, it is believed apparent that a person having ordinary skill in the art would not have desired to provide the Tanaka2 auto-tensioner (or any auto-tensioner for that matter) with a relief valve as disclosed for use in the shock absorber of the Sirven patent or as used with any other shock absorber.

In other words, without benefit of the disclosure and claims of the present application, a person having ordinary skill in the art would not have known, or at least would not have recognized, that the provision of a relief valve in an auto-tensioner would allow for the reduction of an oil leak gap, thereby increasing the hydraulic damping force while effectively preventing the belt used with the auto-tensioner from being stretched due to an increased load on the engine accessory or a sudden increase in the engine rotation speed, by opening the relief valve. Without such knowledge or recognition, there would have been no reason whatsoever for a person having ordinary skill in the art to have considered providing such a relief valve (or a return chamber) in an auto-tensioner such as that of Tanaka2, separately from the oil leak gap 14 of Tanaka2, with or without the teachings of the Sirven patent.

Thus, for the above reasons, it is believed clear, when considered carefully, that a person having ordinary skill in the art would not have found it obvious to modify the Tanaka2 auto-tensioner in view of the Sirven patent or any similar shock absorber of the prior art, in such a manner as to result in or otherwise render obvious the present invention as recited in claim 4.

Therefore, it is respectfully submitted that claim 4, as well as the claims depending therefrom, are clearly allowable over the prior art of record.

It is further submitted that claim 4 is allowable in view of amendments made herein to claim 4 requiring the cylinder 11 to have a closed bottom end and the sleeve 12 to have a radially outer surface that is in contact with a radially inner surface of the cylinder. The cylinder 12 of Tanaka2 clearly has an open bottom, as can be seen clearly in the drawing figures thereof.

Accordingly, in addition to all of the reasons presented above, it is submitted that claim 4 is further allowable over the prior art in view of the above amendments to claim 4.

Examiner's attention is next directed to the dependent claims which set forth additional features of the present invention and further define the invention over the prior art. In particular, it is noted that new dependent claims 8 and 9 are directed to the features of the present invention that the seal member 13 and the sleeve 12 are separate and distinct members, with the seal member 13 being interposed radially between the rod 16 and the cylinder 11 so as to seal a radial gap between the rod 16 and the cylinder 7. Claim 10 further clarifies that the seal member 13 is spaced apart from the sleeve 12 and is disposed above a top end of the sleeve 12, as clearly seen in Fig. 2. Claims 11-14 are directed to the inclusion of a wear ring 22 mounted to the rod 16 and disposed inside the cylinder 11, with the wear ring 22 being in sliding contact with an inner peripheral surface of the cylinder 11 to support an intermediate portion of the rod 16. Claims 12 and 14, in particular, further require the wear ring 22 to be disposed axially between the seal member 13 and the top end of the sleeve 12. It is noted that, in the Tanaka2 reference, the alleged seal member 9 is constituted by a top portion of the alleged sleeve 7. That is, the alleged seal member 9 is actually the sleeve 7 itself, and thus it cannot be said that Tanaka2 discloses a seal member and a sleeve that are separate and distinct members.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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